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REMARKS

Claims 1, 34, 47, 76, and 95 are amended and claim 85 is cancelled by this amendment. Claims 1-82 and 84-110 will be pending upon entry of this amendment.

I. Claims 1-33 and 74-78

Claim 1, as amended, is directed to a food holding oven for holding pre-cooked food in combination with a plurality of trays for holding the pre-cooked food. More specifically, claim 1 specifies the combination of a plurality of trays for holding pre-cooked food having been previously cooked in a cooking appliance, each tray having a bottom wall and side and end walls extending up from the bottom wall to an upper rim defining an open top of the tray, and a food holding oven for holding pre-cooked food at a selected food holding temperature. The food holding oven comprises:

a cabinet having an interior;

partitions in the cabinet dividing said interior into a plurality of separate, thermally isolated holding compartments each being sized for removably receiving only one tray of said plurality of trays;

a plurality of heat sources in said compartments above said trays adapted for activation to emit radiant heat to the food in the trays to warm the food; and

a control mechanism for controlling operation of the heat sources independent of one another whereby the food holding temperature in each compartment may be independently controlled.

Claim 1 is submitted as patentable over the prior art of record, including in particular U.S. Patent Nos. 6,710,308 (Sauter et al.) and 6,011,243 (Arnold et al.), in that none of

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the references show or suggest the combination of a food holding oven for holding pre-cooked food at a food holding temperature and a plurality of trays for holding the pre-cooked food, the oven having a cabinet, and partitions in the cabinet dividing the cabinet into a plurality of thermally isolated holding compartments each sized for removably receiving only one tray.

Sauter et al. disclose a wall oven 102 having an upper cooking cavity 104 and a lower cooking cavity 105. The oven 102 is programmable to perform distinct cooking operations in the upper and lower cooking cavities. The oven 102 has a controller 200 that receives cooking operation inputs for the upper cooking cavity 8 and the lower cooking cavity 9. Upon initiation of a control input, the controller 200 will delay the shorter cooking operation so that the two cooking operations finish at the same time. The oven 102 allows separate components of a meal to be cooked in separate cooking cavities so that each component of the quality of a meal is improved by having the cooking operation of two components of the meal finish at the same time. The upper cooking cavity 104 and lower cooking cavity 105 are full size cooking cavities of the type that are common in conventional home cooking ovens and are not sized for receiving only one tray.

Sauter et al. do not show or suggest the combination of a food holding oven holding pre-cooked food (i.e., food having been previously cooked in a cooking appliance) at a food holding temperature and a plurality of trays for holding the pre-cooked food, the holding oven comprising thermally isolated holding compartments sized for receiving only one tray of the plurality of trays. Rather, Sauter et al. disclose an oven having upper and lower cooking cavities that are sized to extend the full width of the oven; the cavities are not sized for receiving only a single tray. Further,

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Sauter et al. disclose an oven for eliminating the food holding time of food products of a meal by delaying the cooking operation of one of the food products so that the cooking operations of both of the food products are completed simultaneously. The simultaneous completion of the cooking process in both cavities of the oven allows the food products cooked therein to be served at the same time, thus eliminating the need for any food holding time of the food products.

In contrast, the present invention is intended to improve the food preparation process by holding pre-cooked food in trays held in dedicated thermally isolated holding compartments after the cooking process has been completed. The food held in the food holding oven of the present invention is held at a food-holding temperature that may be independently controlled for each compartment of the oven. Sauter et al. completely lack a showing or suggestion of any such food holding oven.

Furthermore, Sauter et al. do not disclose a plurality of separate, thermally isolated holding compartments each sized for removably receiving only one tray having a bottom wall and side and end walls extending up from the bottom wall to an upper rim defining an open top of the tray. The Examiner states in the Office action (second paragraph, page 2) that Sauter et al. disclose cooking vessels placed in each of the cooking compartments, the cooking vessels being inherently "trays" as recited in claim 1. Applicant cannot find any disclosure in Sauter et al. of "cooking vessels" or "trays" and submits that Sauter et al. completely lack any showing or suggestion of the placement of trays having the features recited in claim 1 in the cooking compartments.

Applicant notes that in relying upon inherency, the Office must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly

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inherent feature "necessarily flows from the teachings of the applied prior art." MPEP 2112 citing *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient for inherency. See MPEP 2112, citing *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993).

Arnold et al. disclose a food warming cabinet 10 with a plurality of passageways 14a-d each of which is sized for receiving at least two food containers 16. Each passageway 14a-d has top and bottom heater plates 18a, 18b and top and bottom temperature sensing elements 22a, 22b. A control system provides power to the heater plates 18a, 18b and maintains the temperature of the heater plates within a predetermined temperature range corresponding to the desired holding temperature. The temperature at each heating element 18a, 18b is sensed by the sensing elements 22a, 22b which deliver a corresponding signal to the control system to constantly monitor the temperature in the compartments 14a-d.

The control system keeps the temperature in the compartments 14a-d in a temperature range corresponding with the temperature set point of each compartment by on/off cycling of the power supplied to the heater plates 18a, 18b.

Arnold et al. does not show or suggest the combination of a food holding oven holding pre-cooked food at a food holding temperature and a plurality of trays for holding the pre-cooked food, the holding oven comprising thermally isolated holding compartments sized for receiving only one tray of the plurality of trays. Rather, Arnold et al. discloses passageways in the oven for receiving multiple (i.e., at least two) trays.

Accordingly, claim 1 is submitted to be unanticipated by and patentable over the references of record. Claims 2-33, 74-78, and 102-106 depending directly or indirectly from claim

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1 are submitted as unanticipated by and patentable for the same reasons as claim 1.

Claim 31 depends directly from claim 1 and recites vertically spaced shoulders in each compartment at opposite sides of the compartment for supporting a tray at different elevations in the compartment. Sauter et al. completely lack a showing or suggestion of thermally isolated compartments having the features recited in claim 31.

Accordingly, claim 31 is submitted as unanticipated by and patentable over Sauter et al. for this additional reason.

Claim 74 depends directly from claim 1 and recites that the control mechanism is operable to control operation of each heat source to deliver heat to the food to warm the food to the holding temperature and then to vary the amount of heat delivered to the food to hold the food at the selected food holding temperature. Sauter et al. do not show or suggest a control mechanism that delivers heat to the food to warm the food to the holding temperature and then varies the amount of heat delivered to the food to hold the food at the selected food holding temperature. Rather, Sauter et al. show a conventional cooking operation in an oven that cycles the heating element in the oven on and off based on the temperature in the oven relative to a cooking temperature setpoint.

Accordingly, claim 74 is submitted as unanticipated by and patentable over Sauter et al. for this additional reason.

Claim 75 depends indirectly from claim 1 and recites that the control mechanism comprises an operator input device for selecting the type of food to be placed in the compartment, and that the control mechanism is programmed for operating the heat source according to a predetermined protocol depending on the type of food. Sauter et al. completely lacks any showing or suggestion of a control

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mechanism having an operator input device for selecting the type of food to be placed in the compartment, and a control mechanism programmed for operating a heat source according to a predetermined protocol depending on the type of food selected. At most, Sauter et al. disclose a control mechanism having an operator input device for accepting a temperature set point for each cavity of a cooking oven, but this disclosure does not teach a control mechanism having an operator input device for selecting the type of food, or a control mechanism programmed to operate the heat source according to a predetermined protocol based on the type of food product selected. (see col. 4, lines 30-47).

Accordingly, claim 75 is submitted as unanticipated by and patentable over Sauter et al. for this additional reason.

Claim 76 depends directly from claim 1 and recites that the control mechanism is programmed to operate the heat source according to a predetermined protocol to vary the heat delivered to the food depending on the type of food placed in the compartment. Sauter et al. completely lack a showing or suggestion of a control mechanism having a predetermined protocol that varies the heat delivered to food based on the type of food product. At most, Sauter et al. disclose that the temperature set point of each cavity of a cooking oven can vary, but this disclosure does not teach a predetermined protocol to vary the heat delivered to the food based on the type of food product. (see col. 4, lines 30-47).

Accordingly, claim 76 is submitted as unanticipated by and patentable over Sauter et al. for this additional reason.

Claim 77 depends directly from claim 1 and recites that the control mechanism comprises an operator input device for selecting the type of food product placed in a respective compartment, and that the control mechanism is programmed to operate a respective heat source to heat the food in a

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respective compartment to a pre-programmed selected holding temperature to hold the food at the pre-programmed selected holding temperature. Sauter et al. completely lack a showing or suggestion of a control mechanism having an operator input device for selecting the type of food to be placed in the compartment, and a control mechanism programmed to operate a respective heat source to heat the food in a respective compartment to a pre-programmed holding temperature to hold the food at the selected temperature. At most, Sauter et al. disclose a control mechanism having an operator input device for accepting a temperature set point for each cavity of a cooking oven, but this disclosure does not teach a control mechanism having an operator input device for selecting the type of food, or a control mechanism programmed to operate the heat source to heat the food to a pre-programmed selected holding temperature. (see col. 4, lines 30-47).

Accordingly, claim 77 is submitted as unanticipated by and patentable over Sauter et al. for this additional reason.

Claim 78 depends from claim 77 and recites that the control mechanism is responsive to the operator input device to operate the heat source to hold the food at the pre-programmed selected holding temperature for a pre-programmed holding duration. Sauter et al. do not show or suggest a control mechanism that operates the heat source to hold food at a selected holding temperature for a pre-programmed holding duration.

Accordingly, claim 78 is submitted as unanticipated by and patentable over Sauter et al. for this additional reason.

Claim 102 depends from claim 1 and recites that the control mechanism is operable to activate and deactivate at least one of said heat sources during duty cycles thereby to maintain the food in a respective compartment at a selected holding temperature for a duration of heated holding time,

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each duty cycle comprising a heating interval during which the heat source is activated followed by a non-heating interval during which the heat source is not activated. Sauter et al. do not show or suggest a food holding oven having such a control mechanism. Sauter et al. show a conventional cooking oven closed loop control mechanism using temperature feedback control to cycle the heating elements on and off based on whether the temperature level in the oven is inside a temperature range based on the temperature setting of the oven.

Accordingly, claim 102 is submitted as unanticipated by and patentable over Sauter et al. for this additional reason.

Claim 106 depends from claim 102 and recites that each duty cycle comprises a time-base defined by the total time for the heating interval and the non-heating interval, the time base being preset according to a type of food placed in the holding oven. Sauter et al. do not show or suggest a food holding oven that is controlled using such a duty cycle comprising a time-base defined by the total time for the heating and non-heating intervals.

Accordingly, claim 106 is submitted as unanticipated by and patentable over Sauter et al. for this additional reason.

II. Claims 34-46, 79 and 80

Claim 34 is directed to a method of controlling the operation of a food holding oven comprising a cabinet having a plurality of isolated holding compartments in the cabinet for removably receiving a tray containing pre-cooked food, and a heat source above a respective tray to heat the food in the tray. The operation of the oven is controlled by activating and deactivating each heat source during successive time-based duty cycles to maintain the food in a respective compartment

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at a selected food holding temperature for a duration of heated holding time.

More specifically, claim 34, as amended, specifies a method of controlling the operation of a food holding oven. The oven comprises a cabinet, a plurality of separate, thermally isolated holding compartments in the cabinet, each compartment being adapted for removably receiving a tray for containing pre-cooked food having been previously cooked in a cooking appliance, and a heat source above a respective tray for emitting radiant heat to the food in the tray to warm the food. The method of claim 34 comprises activating and deactivating each heat source during successive time-based duty cycles thereby to maintain the food in a respective compartment at a selected holding temperature for a duration of heated holding time, each duty cycle comprising a predetermined heating interval during which the heat source is activated followed by a predetermined non-heating interval during which the heat source is deactivated.

Claim 34 is submitted as patentable over the prior art of record, including in particular U.S. Patent No. 6,710,308 (Sauter et al.). As noted above, Sauter et al. disclose a wall oven 102 having an upper cooking cavity 104 and a lower cooking cavity 105. The oven 102 is not a food holding oven but rather is a conventional food cooking oven that is programmable to perform distinct cooking operations in the upper and lower cooking cavities. Each distinct cooking operation cooks food held in a respective cavity and does not heat pre-cooked food to maintain the food in a respective cavity at a selected food holding temperature. Sauter et al. teach that the cooking operations of each cavity may be completed simultaneously so as to eliminate the need for holding the cooked food after completion of the cooking process.

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Further, Sauter et al. do not teach a method of controlling the operation of a food holding oven having a cabinet with a plurality of isolated holding compartments in the cabinet for removably receiving a tray containing pre-cooked food, and a heat source above a respective tray to heat the food in the tray. Rather, Sauter et al. merely suggest a conventional cooking operation (e.g., baking, broiling, etc.) which applies a thermal process to uncooked food to achieve a finished cooked food product suitable for a meal. Nothing in the disclosure of Sauter et al. shows or suggests a method of controlling the operation of a food holding oven to maintain pre-cooked food in a respective compartment of the oven at a selected holding temperature.

Still further, Sauter et al. do not teach a method of controlling the operation of a food holding comprising activating and deactivating each heat source during successive time-based duty cycles to maintain the food at a selected holding temperature for a duration of heated holding time, each duty cycle comprising a predetermined heating interval during which the heat source is activated followed by a predetermined non-heating interval during which the heat source is deactivated. Rather, Sauter et al. and the other references of record merely teach a conventional closed loop control system that uses temperature feedback control to cycle the heating elements on and off based on whether the temperature level in the oven is inside a temperature range based on the temperature setting of the oven. Such a closed loop control system monitors the temperature in the oven and, if the temperature in the oven falls below the range the control system, turns on the heating element until the temperature reaches the high point in the temperature range wherein the heating element is powered off.

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In contrast, the method of controlling a food holding oven set forth in claim 34 requires an open loop control system that relies on a time-based duty cycles each having a predetermined heating interval and a predetermined non-heating interval. The method of controlling the oven controls the amount of radiant heat delivered to the pre-cooked food by activating and deactivating the heating elements in successive time-based duty cycles during the duration of heated holding time. The open loop control system having a time-based duty cycle delivers the optimum amount of energy to the food during the food holding time so that the quality of the food and the food holding time is maximized. The energy profile for a specific type of food product can be predetermined by product testing so that the control system maximizes the food holding time and the quality of a specific food product during the food holding time. Such a method of controlling the food holding oven including an open loop control system having time-based duty cycles is not shown or suggested by Sauter et al. or any of the other references of record.

Accordingly, claim 34 is submitted to be unanticipated by and patentable over the references of record. Claims 35-46, 79, 80, and 107-110 depending directly or indirectly from claim 34 are submitted as unanticipated by and patentable for the same reasons as claim 34.

Claim 46 depends from claim 34 and further comprises varying the vertical position of at least one tray in a respective compartment. As set forth above for claim 1, Sauter et al. completely lack any showing or suggestion of a tray for containing pre-cooked food in a respective compartment of the oven. Further, Sauter et al. lack a showing or suggestion of varying the vertical position of the tray in a respective compartment.

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Accordingly, claim 46 is unanticipated by and patentable over Sauter et al. for this additional reason.

Claim 80 depends indirectly from claim 34 and recites that the method further comprises programming the oven to heat the food in each compartment to a selected holding temperature which varies depending on the type of food placed in the compartment. Sauter et al. do not show or suggest programming the oven to vary the temperature of each compartment depending on the type of food placed in the compartment. Rather, Sauter et al. disclose programming separate and distinct cooking temperatures for the respective cooking operations in each cavity, but this disclosure does not teach that the cooking temperatures vary by the type of food being cooked.

Accordingly, claim 80 is unanticipated by and patentable over Sauter et al. for this additional reason.

III. Claims 47-51, 81, and 82

Claim 47 specifies a method of controlling the operation of a food holding oven. The oven comprises a cabinet, a plurality of separate, thermally isolated holding compartments in the cabinet, a plurality of trays for containing pre-cooked food having been previously cooked in a cooking appliance, each compartment being sized for removably receiving only one tray per compartment, and heat sources above respective trays adapted for activation to emit radiant heat to the food in the trays to warm the food. The method of claim 47 comprises:

placing at least one tray of said plurality of trays in the oven such that only one tray is received in a respective compartment;

setting a selected holding temperature for each compartment;

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setting a duration of holding time for each compartment, said duration of holding time comprising a duration of heated holding time; and

activating each heat source during a respective duration of heated holding time thereby to maintain the food in a respective compartment at said selected holding temperature.

Claim 47 is submitted as patentable over the prior art of record, including in particular Sauter et al. and Arnold et al., in that none of the references show or suggest a method of controlling the operation of a food holding oven having a cabinet with a plurality of thermally isolated holding compartments each sized for removably receiving only one tray for holding pre-cooked food per compartment, and a heat source above a respective tray to heat the food in the tray, the method comprising placing at least one tray in the oven such that only one tray is received in a respective compartment. Sauter et al. also fail to teach a method of oven operation comprising setting a selected holding temperature, setting a duration of holding time for each compartment, the duration of holding time comprising a duration of heated holding time, and activating each heat source during a respective duration of heated holding time to maintain the food in a respective compartment at the selected holding temperature.

As noted above, Sauter et al. disclose a wall oven 102 having an upper cooking cavity 104 and a lower cooking cavity 105. The oven 102 is not a food holding oven, but rather, is a conventional food cooking oven that is programmable to perform distinct cooking operations in the upper and lower cooking cavities. Each distinct cooking operation cooks food held in a respective cavity and does not heat pre-cooked food to maintain the food in a respective cavity at a selected food holding temperature. Sauter et al. teach that the cooking operations of each cavity may be completed simultaneously so as to eliminate

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the need for holding the cooked food after completion of the cooking process.

Sauter et al. thus fail to show or suggest a method of controlling the operation of a food holding oven having a cabinet with a plurality of isolated holding compartments in the cabinet sized for removably receiving only one tray containing pre-cooked food, and a heat source above a respective tray to heat the food in the tray. Rather, Sauter et al. merely suggest a conventional cooking operation (e.g., baking, broiling, etc.) which applies a thermal process to uncooked food to achieve a finished cooked food product suitable for a meal. Nothing in the disclosure of Sauter et al. shows or suggests a method of controlling the operation of a food holding oven to maintain pre-cooked food in a respective compartment of the oven at a selected holding temperature.

Furthermore, Sauter et al. does not show or suggest the step of placing at least one of the plurality of trays in the oven such that only one tray is received in a respective compartment. As noted above, Arnold et al. disclose a food warming cabinet 10 with a plurality of passageways 14a-d each of which is sized for receiving at least two food containers 16. Each passageway 14a-d has a top and bottom heater plate 18a, 18b and a top and bottom temperature sensing element 22a, 22b. A control system provides power to the heater plates 18a, 18b and maintains the temperature of the heater plates within a predetermined temperature range corresponding to the desired holding temperature. The temperature at each heating element 18a, 18b is sensed by the sensing elements 22a, 22b which deliver a corresponding signal to the control system to constantly monitor the temperature in the compartments 14a-d. The control system keeps the temperature in the compartments 14a-d in a temperature range corresponding with the temperature set point of each compartment by on/off cycling of the power supplied to the heater plates 18a, 18b.

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Arnold et al. does not show or suggest the step of placing at least one of the plurality of trays in the oven such that only one tray is received in a respective compartment. Rather, Arnold et al. discloses passageways in the oven for receiving multiple (i.e., at least two) trays.

Further, Arnold et al. does not disclose the step of setting a duration of holding time for each compartment, the duration of holding time comprising a duration of heated holding time. Rather, Arnold et al. teach a control system that maintains the temperature in the compartments in a temperature range corresponding with the temperature set point of each compartment by on/off cycling of the power supplied to the heater plates. Arnold et al. do not disclose setting a duration of holding time comprising a duration of heated holding time as required by claim 47.

Accordingly, claim 47 is submitted to be unanticipated by and patentable over the references of record. Claims 48-51, 81, and 82 depend directly or indirectly from claim 47 are submitted as unanticipated by and patentable for the same reasons as claim 47.

Claim 82 depends indirectly from claim 47 and recites that the method further comprises programming the oven to heat the food in each compartment to a selected holding temperature which varies depending on the type of food placed in the compartment. Sauter et al. do not show or suggest programming the oven to vary the temperature of each compartment depending on the type of food placed in the compartment. Rather, Sauter et al. disclose programming separate and distinct cooking temperatures for the respective cooking operations in each cavity, but this disclosure does not teach that the cooking temperatures vary by the type of food being cooked.

Accordingly, claim 82 is unanticipated by and patentable over Sauter et al. for this additional reason.

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IV. Claim 86

Claim 86 is directed to a method of controlling the operation of an oven where the oven comprises a cabinet, a plurality of separate, thermally isolated holding compartments in the cabinet, each compartment being adapted for removably receiving a tray for containing food, and heat sources above respective trays adapted for activation to emit radiant heat to the food in the trays to warm the food. The method of claim 86 includes the following steps:

- setting a selected holding temperature for each compartment;
- setting a duration of holding time for each compartment;
- said duration of holding time comprising a duration of heated holding time;

- activating each heat source during a respective duration of heated holding time thereby to maintain the food in a respective compartment at said selected holding temperature;

- placing a tray containing food at a temperature above said selected holding temperature into a respective compartment;

- deactivating the heat source in the compartment while the temperature in the compartment cools down to said selected holding temperature during a duration of non-heated holding time;
- and

- activating and deactivating the heat source in said at least one compartment during successive duty cycles thereby to maintain the food in the compartment at said selected holding temperature for said duration of heated holding time.

Claim 86 is submitted as patentable over the prior art of record, including in particular Sauter et al. and Arnold et al., in that none of the references show or suggest a method of controlling the operation of a food holding oven including the steps of placing a tray containing food at a temperature above the selected holding temperature into a respective compartment,

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deactivating the heat source in the compartment while the temperature in the compartment cools down to the selected holding temperature during a duration of non-heated holding time, and activating and deactivating the heat source in the at least one compartment during successive duty cycles thereby to maintain the food in the compartment at said selected holding temperature for said duration of heated holding time.

Sauter et al. and Arnold et al. do not teach the step of deactivating the heat source in the compartment while the temperature in the compartment cools down to the selected holding temperature during a duration of no-heated holding time. Accordingly, claim 86 is submitted to be unanticipated by and patentable over the references of record.

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In view of the foregoing, reconsideration and allowance of claims 1-82, 84, and 86-110, as now presented, are in condition for allowance.

The commissioner is hereby authorized to charge the fees indicated on the fee transmittal to Deposit Account No. 19-1345 for the extension of time fee. The commissioner is hereby authorized to charge any fee deficiency or credit any overpayment to Deposit Account No. 19-1345 in the name of Senniger Powers.

Respectfully submitted,



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